

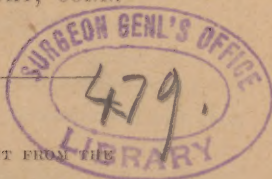
PIERCE (G. H.)

SOMNAL

—IN—

INSOMNIA.

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SOMNAL IN INSOMNIA.

BY GEORGE H. PIERCE, A. B., M. D.,
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ANY MEANS to combat insomnia aside from the use of that deadly drug, morphine, is most welcome, not only to the doctor; but to the restless mortal tossing about on his sleepless pillow. And this picture is not overdrawn, as we can testify from our sorely tried experiences. The following case recently occurring in my practice, will illustrate both the actuality of the unrest, and the efficacy of a new drug, of which, as yet, but little clinical information has been written.

Mr. C., a manufacturer, has consulted me time after time on account of persistent insomnia, brought on by too close attention to business; and not only that, but to show what strain was brought to bear upon a brain, not ordinarily made for such hardships; at times when the wheels of his factory were run-

ning at their fullest capacity, and products were being turned out to supply enormous demands; he was compelled suddenly, without a moment's warning, to close his doors on account of the work of the incendiary. Not once only, but four times did this calamity come upon him, and the last time, when the acme of his business enterprise had been reached. Indeed, the last blow was all but fatal to the gentleman's earthly existence; not that the effects of the shock were immediate, for he bravely, but barely nerved himself against a threatened insanity—and once more was started in the channel of industry. It was some months after this occurrence that I was consulted by him on account of a feeling of nausea and headache, which at first I attributed to a bilious attack, but from the persistency of the headache, which increased to the most violent and excruciating pain imaginable, I saw that I had a case of more serious nature to deal with.

I was afraid it might terminate in cerebral meningitis, but it did not prove to be of an inflammatory nature, as there was no rise in temperature. Nothing

that I tried gave the least relief, until an hypodermic of morphia, gr. $\frac{1}{4}$, was given. This succeeded in alleviating the pain. After two weeks illness he was able to go out of doors, and again gradually to attend to his business. It was after this illness, during the fall, that he complained especially of insomnia. He had suffered from it more or less for a number of years and had taken all the powerful medicines usually prescribed, and some of them not prescribed, without effect or only temporary. He had taken bromide of potash, bromides of potash and soda, Peacock's bromides, chloral, bromidia, sulfonal, and even in his desperation had poured chloroform upon a handkerchief, placed it on his pillow, and breathed himself into insensibility. Morphia and its kindred preparations he had avoided; he had never become accustomed to use them. . . . Finally, a *new hypnotic* appeared in the zenith of pharmacy and was brought to my notice by the clinical data furnished by Dr. Frank Woodbury, of Philadelphia.

This new hypnotic was *Somnal*, a combination of "Chloral, Alcohol and

Urethane," but not a simple mixture of these bodies.

Accordingly, after exhausting the previous *materia medica* on my patient with no benefit, Somnal was prescribed, my original prescription being:

R.—Somnal, ʒij.

Syr. Zingiberis, q. s. ad. ʒij.

M. Sig., teaspoonful in a glass of milk, at bedtime; to be repeated in two hours if not asleep.

Mr. C. took this according to directions, and I was gratified to learn from him some days after, that it afforded him restful sleep, but not, however, for the entire night. It would cause him to sleep exactly five hours, when he would awaken, and then take another spoonful and sleep another five hours. No unpleasant after-effects were noticed in the morning, either of the head or stomach. Three times he had the prescription renewed, and upon one occasion, finding himself without any of the medicine in the house and not being able to sleep, he sent for me in the night to give him an hypodermic of morphine. But instead of this, having an ounce bottle of Somnal in the office,

I took it along with me and persuaded him to try it; and giving him 40 drops in a tumbler half full of milk, for Somnal is pungent and requires dilution, he slept *fourteen* hours. He had been several nights without sleep, and after sleeping this length of time he awakened refreshed, although he said that his head felt somewhat full or heavy during the forenoon. Somnal was the last hypnotic which he has taken in two months, and at present he requires no medicine to make him sleep.

The effects of Somnal upon the system, as noticed by Drs. Frank Woodbury and Ernest Laplace at the Philadelphia Hospital were as follows: (I quote from a little pamphlet sent me by Messrs Eisner & Mendelson, of New York.):

“Physiological Effects.—In its action Somnal resembles chloral in quickness of effect and naturalness of sleep produced. No marked depressing influence was exerted upon the pulse or respiration rate, though it was noticed that the breathing became slower and fuller as in natural repose. No disagreeable after-effects. The head was clear and the stomach was

unaffected; the patients generally had an appetite for breakfast. The kidneys acted rather more freely than usual. My colleague, Dr. Ernest Laplace, to whom I gave some of the drug for trial at the Philadelphia Hospital, writes as follows:

“I have given Somnal a fair trial upon six patients at the Philadelphia Hospital. In no case were the patients told what was given them, so outside of the bare possibility of the patients’ falling asleep through natural causes, somnolence was brought on by the drug. It was administered in a solution of tinct. zingiberis, in half-teaspoonful doses, and was found palatable.

“Administered at 4 P. M., at a moment when patients were not generally asleep, in four cases sleep came on within half an hour, which lasted from five to eight hours; the two other cases showing no effect from the drug. It is their habit to get at least gr. $\frac{1}{4}$ of morphine sulph. to put them asleep every night, as they are sufferers from intractable malignant growth.

“In no case was there any noticeable after-effect.

“I have not formed any opinion upon the length of time that the drug could be used daily upon the same patient.

“To this I might add that no depression of the normal temperature was noticed in any case, in my hands, and thus far I have not used it in pyrexia.

“*Therapeutic Application.*—The effects of Somnal in producing natural sleep suggested its use in insomnia. The first case in which I used it was in a patient suffering with acute alcoholism, who had been under treatment for a fortnight in an institution where he had a free supply of liquor, and he came out rather worse than he went in. He was 39 years of age, very tremulous, and could not sleep, or if he dozed off would immediately waken up. I gave him, at about 3 P. M., thirty minims of Somnal, (or rather a drachm of a mixture of equal parts of Somnal and whiskey), well diluted, and went into an adjoining room to speak to an attendant. Upon my return I was surprised to find him fast asleep, although I had not been away from him more than fifteen minutes. He slept for four hours, and then was able to take something to eat. At 10 o'clock

he had another dose and he slept until 7 the next morning, having woke up once only during the night, and insisted upon having another dose, and immediately after taking it fell asleep again. The next night he was given a double dose at 10 P. M., and he slept all night without awakening. No bad effects were observed."

By comparing this case with my own, it will be seen that the effect of the drug was quite identical. •In Mr. C.'s case 10 minims would cause sleep for *five hours*, and this would recur whenever the dose was repeated. In four of the cases mentioned by Dr. Laplace half-teaspoonful doses brought on sleep within half an hour, which lasted from five to eight hours. In Dr. Woodbury's case a teaspoonful caused the patient to sleep all night, without any unpleasant after-effects being experienced.

In my patient's case, 20 minims produced sleep for 14 hours, and there was a feeling of fullness and unsteadiness in the head the next morning, but this passed off, and he was better for having slept so long. He told me, yesterday, that when he was taking the medicine

every night, he would have to increase the dose on succeeding nights to produce the same effect. But only 40 drops were sufficient to cause 14 hours sleep, and this was not a large dose when compared with a half-teaspoonful, or teaspoonful, as had been given in the Philadelphia Hospital, with no bad effects.

I quote the following cases reported to me by Dr. W. C. Wile, of Danbury.

Miss A., a pale anæmic girl of sixteen, has been troubled with insomnia for several months; would go to bed every night about ten o'clock, and read for an hour, when she would go to sleep; but sleep lightly, with bad dreams, and only for an hour or two, when she would awaken with a start as if from some horrible nightmare. She could not get to sleep after this, but would toss about until time for rising, about 7 A. M. When she finally got up, she would feel great weakness and desire to sleep; but when the fickle goddess was wooed, she would not respond. Ale and Beef combined with Bovinine and Royal Tokay Wine (Calvico) were administered freely, and a pill of phosphorus co. given three times a day. On retiring at night, a

full dose, 15 drops, of Somnal was given, with most happy effect; she slept inside of a half hour after taking the dose and continued to sleep until morning. This treatment was carried on for a month with the gratifying result of a complete restoration to health. The dose of Somnal did not have to be increased, and after the first week, it was only given every other night, the third week only every three nights, and the fourth week taken only once.

J. B., a machinist, aged thirty-seven, engaged in perfecting some invention in which he was interested, consulted me on account of his inability to sleep more than two hours a night. He would go to bed about 9.30 p. m., utterly worn out with his days work, and go to sleep at once; in about two hours he would become partly conscious, and in a little while wholly so, when his thoughts would revert to his work and he could not get to sleep again until morning. A dose of Somnal, 15 drops, given every night for two weeks, completely cured him of this habit.

“Dr. Guttman, Surg. Director of the City Hospital Moabit, in Berlin, states

that he has applied Somnal in sixty to seventy cases at the hospital. Doses of 2 grammes, 30 minims, have produced a quiet, refreshing sleep, lasting from six to eight hours, without any unpleasant symptoms following its use.

The British Medical Journal says: *Somnal*, when given in doses of half a teaspoonful, will produce sleep in thirty minutes. The sleep is described as sound and natural, lasting from six to eight hours, and followed by no unpleasant effects.

Somnal does not disturb the digestion, has no influence over the pulse or temperature, and, in fact, has the excellent qualities of both chloral and urethane without their disadvantages.

Dr. Kny, of Strassburg, prefers *Somnal* to *Sulfonal*, and claims that it produces *deep sleep* within half an hour after its administration, and that it has but little influence on the heart's action.

Dr. J. S. Ridge, of Kingston, R. I., states that he has used *Somnal* on three cases of insomnia, in middle-aged and quite old ladies, with beautiful results, having used *Sulfonal*, *Bromidia*, and *Chloralamid* with little or no result. He

gave a lady, eighty years old, suffering from insomnia, 3 grammes of Somnal, at bedtime, in a little Syrup of Raspberry, with splendid effect, she getting, so the nurse says, six hours sound sleep. This is the best soporific he has used yet."

Dr. Gilman Thompson, Professor of Physiology in the New York Medical College, and Visiting Physician to the New York and Presbyterian Hospitals, has performed some very interesting experiments with Somnal upon the cat and dog. "Into the rectum of a cat were injected five cubic centimeters of Somnal; into a black-and-tan dog, weighing nine pounds and a half, were injected hypodermically 25 minims, and to a large bulldog weighing twenty-three pounds and a half, thirty minims of Somnal were given by hypodermic injection. In all of them in a general way, the following phenomena occurred: There was no local irritation; in point of time, varying from a minute and a half to twenty five minutes after the injections were made, the pupils were dilated and the conjunctivæ congested. There was temporary increase of arterial blood-pressure in the dog; vertigo and muscular

tremors. In from fifteen minutes to half an hour the phenomena ceased, and sleep came on, which was allowed to continue for an hour and a half, when they were awakened and found to be in a normal condition.

These experiments show that—

I. The ordinary dose of Somnal (thirty minims for man) may be given by hypodermic injection to dogs without other effect than drowsiness and slight vertigo and muscular tremor.

II. A dose of one fluid drachm and a half failed to affect a cat except in the same manner as the dogs.

III. A fatal dose of half a fluid ounce stopped the respiration before the heart and caused congestion of all the abdominal viscera.

IV. The blood pressure in the arteries of a dog is temporarily increased by Somnal, soon returning to the normal."

Summing up, it will be seen from these testimonials, that the dose of Somnal given by different practitioners, differs quite largely. One will obtain sleep in a half hour with fifteen drops, which will last until morning, or all night; another will give ten minims and cause sleep for

five hours; another will administer a half teaspoonful, or thirty minims, and produce sleep in fifteen minutes, which will last for four hours; another finds that half teaspoonful doses, i. e. thirty minims, will produce sleep for from five to eight hours; and another will obtain sleep for six hours, from having taken three grammes, or forty-five minims.

These differences in results are only such as obtain in administering many drugs. It depends upon the peculiarity of the patient, the age, temperament, idiosyncrasy, nature of disease, and susceptibility to drug action. These must be taken into account in administering this, as other drugs.